WHAT IS CLAIMED IS:

1. An engine generator apparatus comprising:

a generator driven by an engine; and

an oxygen density sensor for controlling the air-fuel ratio of the engine,

wherein the engine is controlled so as to rotate almost at a constant speed and

wherein when an electric load which magnitude is more than a predetermined value is connected to the generator, a control of the air-fuel ratio to the engine based on a detection signal of the oxygen density sensor is started.

2. The engine generator apparatus as claimed in claim 1, wherein when the generator is brought into a no-load operating state, the control of the air-fuel ratio to the engine based on a detection signal of the oxygen density sensor is stopped.

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The engine generator apparatus as claimed in claim 1 or
further comprising:

an output control unit that supplies electric power generated by the generator to the load, and interconnects the electric power to a power network;

failure detection means for detecting a disorder in

interconnection of the engine generator apparatus to the power network; and

means for releasing the interconnection of the engine generator apparatus to the power network when the failure detection means detects the disorder.

The engine generator apparatus as claimed in claim 1 or
2, wherein the engine and the generator form parts of a co-generation system provided with an exhaust heat utilizing unit as the electric load; and

the engine is started by a heat request signal from the exhaust heat utilizing unit.

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5. The engine generator apparatus as claimed in claim 3, wherein the engine and the generator form parts of a co-generation system provided with an exhaust heat utilizing unit as the electric load; and

the engine is started by a heat request signal from the exhaust heat utilizing unit.